

Lasca Leaves



Los Angeles County Department of Arboreta and Botanic Gardens

Mildred E. Mathias
Botanical Garden

THIS DEPARTMENT is happy to add its salute to the UCLA Board of Regents for naming the university's eight-acre botanical garden after its longtime director, Dr. Mildred E. Mathias. The honor was accorded Dr. Mathias last January in recognition of her 24 years at the university as professor of botany, service as head of the botany department, 18 years as director of the garden, authorship of numerous books in her field, the leadership she has given to many professional organizations, and the national reputation she has earned as a leading authority on botanical taxonomy.

The Mildred E. Mathias Botanical Garden, as it is now known, is primarily a teaching resource that is also open to the public. Located in the southeast corner of the UCLA campus, it contains some 3,500 plant species including a number of outstanding specimens of flowering trees.

At the Arboretum, Dr. Mathias is a well-known friend, supporter, and advisor. Old hands at the garden will remember that she started her long association in 1950 when she became a member of the editorial committee of *Lasca Leaves*. Shortly after, she became a member of the California Arboretum Foundation Board of Trustees and remains today an honorary board member.



Dr. Mildred E. Mathias

It is commonly known in the profession that botanical gardens are seldom named for a person and almost never for a person who is living. It was understandable, then, that one of Dr. Mathias' first comments on being notified of the honor was, "But I'm still alive!" Not only alive but very active, although formally retired. She is chairman of the UCLA Natural Land and Water Reserves advisory committee, executive director of the American Association of Botanical Gardens and Arboreta, and each year conducts field trips to various areas outside the country, most recently to Costa Rica, the Amazon, and the South Pacific.

Arbor Day

AS IT HAS for the past several years, the County Department of Arboreta and Botanic Gardens gave a thousand trees to a thousand L.A. County schools last March 7 as part of its contribution to the observance of Arbor Day. Almost as many packets of teacher resource material were distributed to science curricula coordinators in the 53 participating school districts in the county.

Assembling the packets and growing the trees was and is no small job. Arboretum Superintendent John Provine, who is in charge of the growing program, said: "It took 18 months and a careful watering and feeding program at the Arboretum for this year's trees — *Callistemon* 'Red Cascade,' a new Arboretum introduction — to grow from cuttings in 3-inch pots to 10-foot specimens in 5-gallon cans."

Practically every school receiving a tree had a planting ceremony, the students digging the hole, preparing the soil, and otherwise following the planting directions supplied in the resource packet. Members of the Arboretum's Las Voluntarias undertook the job of assembling the packets which contained a history of Arbor Day, suggested program ideas for its observance, information concerning conservation and the value of plants, brief illustrated articles about the uses and character of



Some of the 1,000 Callistemon 'Red Cascade' grown at the Arboretum over a period of 18 months before being distributed to county schools for their commemorative Arbor Day programs March 7.

Photo by Don Dimond

wood, water as a resource, our forests, and, lastly, an educational puzzle for youngsters to work out.

The Arboretum has been using its resources to foster the ideas of Arbor Day for 15 years. At one time, schools brought students to one of the Department's gardens for a commemorative ceremony which ended with each student being given a seedling tree in a procedure that more and more began to resemble a bargain-basement rush. In 1972, the Department redirected its Arbor Day program to the present school-centered observances, a change that resulted in a greater number of students concentrating more on the real values of Arbor Day and less on the acquisition of a free tree. Commenting on the change which he had instigated, Francis Ching, department director, noted that "we want to make the best effort we can

in helping students increase their awareness and understanding of the social values in planting trees and conserving our natural resources by doing this in their community."

South Coast Payment

AT THE GROUND-BREAKING ceremony for the building of the administrative center at South Coast Botanic Garden nearly four years ago, the president of the South Coast Botanic Garden Foundation, Paul Saffo, presented County Supervisor James Hayes, in whose district the garden is located, with a check for \$20,000. The check represented the Foundation's tangible expression of appreciation for the County's having undertaken the long-planned-for construction. The Foundation further made a pledge to contribute \$200,000 over the next five years toward the cost of the project.

Last January, the Foundation's current president, Helen Pickett, sent Supervisor Hayes a payment of \$10,000, leaving \$158,000 still due. The payment would have been larger, she said, except that at the same time she also sent a check of \$9,000 to County Arboreta and Botanic Gardens Director Francis Ching as a contribution toward the operating costs of South Coast, suffering like the other two Department gardens from budget austerities resulting from Proposition 13.

Raising these sums, says President Pickett, has not been easy. The money has come principally from donations and from Foundation-sponsored special events. But, she says, new fund-raising plans are being developed that are expected to make it possible for the Foundation to discharge the obligation it has assumed pretty much on schedule.

New Guild President

RANDY (Mrs. Edward C.) McDonald was elected president of the Descanso Gardens Guild at the Guild's annual meeting last February, succeeding Nancy Dunn, who had served a three-year term. Mrs. Dunn will continue as a member of the Guild's Board of Trustees and, in response to a request from the new president, will head a major new Guild project, namely, propagating plants for the garden and for Guild sales.

Randy McDonald comes to her new post after an 11-year association



Randy McDonald

with the Guild. She is a docent, has been a member of the Project Board for seven years and is in her fourth year on the Board of Trustees, serving last year as second vice-president of the Guild. A journalism major and theater arts minor at the University of North Carolina where she received her degree, Randy worked in advertising and broadcasting in New York before coming to California 20 years ago with her husband, Ted, and two children. Settling in La Canada-Flintridge, she became active in a variety of community organizations, among them the La Canada Chamber of

Commerce, St. George Episcopal Church, and the Headstart program in Pasadena.

New officers elected with Mrs. McDonald to one-year terms are Mary (Mrs. Joseph M.) Greene, first vice-president and head of the Project Board; Dorothy (Mrs. Elmore) Aronstam, second vice-president; Mr. Fred Bryers, third vice-president; Ruth (Mrs. Paul F.) Decker, recording secretary; and Margaret (Mrs. Rodney) Rood, corresponding secretary.

Weather

IF PEOPLE TALK more about the weather when it's what they call bad, then the past weather season has provided enough rain and cold for more than the usual amount of conversation. Our figures come from the Arboretum's plant recorder, Dan Martel, who has been keeping weather records for the past 23 years. Mr. Martel measures temperatures and rainfall but, lacking an anemometer, gets wind speed information from the National Weather Service, formerly known as the U.S. Weather Bureau.

In this area, the rain season is measured from October 1. According to Mr. Martel's records, last October and November were essentially normal and so can be dismissed with minimum comment. October had an average high of 87.1 degrees, an

average low of 57.2 degrees, a scanty .11 inches of rain, and a few days of strong Santa Ana winds. November cooled down to an average high of 71, an average low of 45.3, and had 1.92 inches of rain. The next three months were something else. December began with an unnoteworthy two days of light rain totaling a paltry .08 inches. Then, on the night of the 6th, a cold wind arrived from the north causing a normal night temperature of 42 degrees to drop 18 degrees and, the following night, to an all-time low for the month of 22.5 degrees. Three days of low temperatures did considerable damage to tropical and subtropical plants on the Arboretum grounds and even damaged a few normally cold-resistant plants. The month ended with average highs and lows approximately three degrees below normal and a slightly above-average — 2.95 inch — rainfall.

In January, the sun and clouds played hide-and-seek the entire month, the clouds serving up a well-distributed 6.50 inches of rain. With an average temperature of 41.6 degrees, it was the coldest month in five years. February had 3.68 inches of rain and an average temperature identical to January. Total rainfall from October 1 through February 28 was 15.16 inches, three inches above normal, nine inches below last year, or enough with everything else, to be worth talking about.



INVITE A FRIEND



to become a member of the

California Arboretum Foundation

A gift membership to the California Arboretum Foundation benefits the Arboretum and gives the new member special privileges:

Subscription to the bi-monthly **Garden** magazine

Selected seeds and a free plant annually

Free admission to the Arboretum all year

A 10% discount on most purchases at the Gift Shop



Spring at the Gardens

Camellia show at Descanso Gardens (above left); Fiesta de Flores at South Coast Botanic Garden (above right); Victorian rose garden at Los Angeles State and County Arboretum (below).

Photos by William Aplin



Snow Gums

Leonid Enari

IN HIS BOOK "Australian Tree Portraits," Charles P. Mountfort calls the snow gums "children of the snow, the rain, and the storms" that are seen at their best "after a blizzard with the snow piled high above their roots and their trunks sheeted with ice." For Californians, who have lived with eucalypts now about 100 years, this somewhat romantic description comes as a surprise, but only because they do not associate eucalypts with snow and ice. Mountfort is completely accurate.

Snow gums are eucalypts found in the higher altitudes of southeast Australia where frosts are frequent and severe and snow may lie on the ground for several months of the year. In the Australian Alps they form the timberline. Above the snow gums are alpine grasslands with low stunted shrubs and mosses, the only plants able to withstand the extreme cold and violent storms occurring at this elevation.

As a group, snow gums are small to moderately large trees with twisted trunks, shedding bark, coriaceous leaves and small clustered white flowers. Their timber is of no commercial value except for fuel and possible fencing for snow barriers. However, the group has value in providing shelter for wild life in their bleak habitats and in giving protection to the soil.

Being more cold resistant than other eucalypts, and often more beautiful, snow gums are planted in England, Scotland, Ireland, and



Eucalyptus pauciflora. An Arboretum introduction of June 1978.

continental Europe, but are rarely seen in California or the rest of the United States.

The snow gum group consists of about 10 species including snow gum, alpine snow gum, Tasmanian snow gum, black mallee, spinning gum and Tasmanian cider gum.

Snow or cabbage gum (*Eucalyptus pauciflora*) grows in New South Wales, Victoria and Tasmania. It is usually 30 to 60 feet tall with a misshapen trunk. With minor exceptions its altitudinal range on the mainland is 2,000 to 5,500 feet; on Tasmania it ranges from about sea level to 2000 feet. The climate in the higher altitudes generally is cold to cool with fifty to a hundred or more frosts a year. At the highest altitudes it is most widely associated with black sally (*E. stellulata*) and alpine snow gum (*E. niphophila*) and at the lower altitudes with a large range of other eucalypts. Extensive pure stands, often only 30 to 40 feet high, occur on the ridges of the Monaro Tablelands in New South Wales, and just below the alpine snow gum in the Australian Alps and in Tasmania. Its bark is pale and often prettily streaked. The species is one of the most inappropriately named. Its botanical name means "few-flowered," yet it is common to see trees covered with flowers during the summer months. The tree is useful for its honey and pollen. The honey is a bright golden color and of good quality, but the flavor is rather peculiar to anyone who has not acquired a taste for it. Locally, however, it realizes top prices.

Alpine snow gum (*E. niphophila*) grows at very high altitudes in New South Wales and Victoria, higher as a matter of fact, than any other tree in Australia. Because of the bleak, harsh environment at these elevations, it often assumes a shrubby, mallee form of growth, with several stems arising from a protected, bulbous rootstock. Most of the high-altitude trees offer picturesque sights

with their weatherbeaten trunks twisted into strange and beautiful shapes, and their pale bark, streaked with vivid reds, pinks, yellows and greens against the glistening snow. The alpine snow gum is closely related to the previous species (*E. pauciflora*) and often considered only as a high-altitude form of it.

Tasmanian snow gum (*E. coccoifera*) grows to 80 feet at lower altitudes but is reduced to a stunted tree or shrub with wind-swept branches and twisted trunks in the high altitudes. It is one of the most cold-hardy of the eucalypts and will stand temperatures close to 0° F. Its botanical name was intended to refer to the presence of coccids (scale insects) on the twigs, but this is a common feature of many eucalypts.

Black sallee (*E. stellulata*) is a small-to-medium-sized tree occurring on cold, wet sites throughout the higher parts of the Great Dividing Range in New South Wales and Victoria. It is reputed to be one of the most cold resistant eucalypts on the Australian mainland, but will not tolerate drought as well as the snow gum (*E. pauciflora*). Its bark is hard, closely cracked, persistent and, as its common name implies, black or very dark, especially on the lower part of older trees. It is a good looking tree well deserving of cultivation, particularly in cold and wet areas.

Little sally (*E. moorei*) is common on the Blue Mountains of central New South Wales at altitudes of 1500 to 3500 feet. It is closely related to black sally but smaller. It is usually less than 10 feet tall, forming thickets on the exposed sandstone plateau where soils are shallow and extremely low in nutrients.

Spinning gum (*E. perriniana*) occurs in isolated patches in Tasmania, Victoria and New South Wales. In Tasmania, it is found at altitudes of 1000 to 2000 feet and in Victoria and New South Wales between 4000 to 6000 feet. It is

thus a distinctively cold climate species which in cultivation can be grown in much warmer and drier areas. The most outstanding feature of this species is that the juvenile leaves, which are glaucous, are joined at their bases to form a single, round or elliptical disk about the size of a silver dollar. When these disks die, they become detached from the stem and rotate in the wind. Cut branches can be used as long-lasting foliage for decorating.

Tasmanian cider gum (*E. gunnii*), from the high altitudes of the Tasmanian mountains, is known to grow up to 100 feet tall. It is fast growing, easily reaching 18 feet in three years. The dead bark comes off in sheets or scales, leaving the trunk and branches more or less smooth and a pale greenish-gray color. In English gardens it is much appreciated and sometimes grown as an annually coppiced plant for its beautiful glaucous juvenile foliage on silvery pink shoots.

Snow gums, like other eucalypts, are raised from seed. No worthwhile method for their vegetative propagation has been found. If eucalypts are intended to be grown in cold areas, it is essential to know seed provenance, i.e., locality of seed collection. Plants from seed collected at the highest and coldest areas of natural occurrence have a better chance to succeed.

The seed of alpine and montane species is very erratic in germination, which may start in 10 to 14 days and may continue over a period of a year. Cold, moist storage, about 35°F (bottom of a refrigerator) for six or eight weeks before sowing, has been found a satisfactory method of breaking dormancy and producing rapid and uniform germination.

Seed boxes should be at least 3 inches deep and the sowing compost should be sterilized before sowing to kill weeds and damp off disease. Soilless commercial sowing com-

posts need no sterilization and have proved to be very satisfactory. After sowing, seeds should be covered to a depth of 1/8 to 1/4 inches with sieved compost or washed coarse sand. This method seems to give the seedlings more support to stand up to watering than the practice of leaving them uncovered.

When the soil temperature is about 60°F, germination will start in 6 to 14 days or in 2 to 6 days with cold-stored seed. As soon as germination starts, seedlings must have full light for their best development. Seedlings are very sensitive to any temporary shortage of water and in this respect must be checked regularly. On a hot sunny day seed boxes become dry fast.

Seedlings must be transplanted into containers from which they will be transplanted out while they are very small. The time to do this is when the second pair of leaves is showing. Such seedlings will be 1/2-to 1-inch long and their roots will be 2 1/2- to 5-inches long. Depending largely on light conditions, seedlings will reach the correct transplanting size in 3 to 5 weeks from germination.

Of the various containers used for raising eucalyptus, paper composition pots, through which roots can grow, seem to produce the best results. Their sizes vary from 1 1/2- to 3 1/2-inches in diameter and 6- to 9-inches deep. Clay pots should never be used because they inhibit strong root development after planting. When potting, great care is essential to avoid root damage, to get the roots straight down in the compost and establish good contact between roots and compost. No delays should occur between planting and watering. When seedlings reach 6 to 8 inches they should be planted directly out without potting-off from one container to another.

The quality of eucalypts offered by most nurseries is questionable.

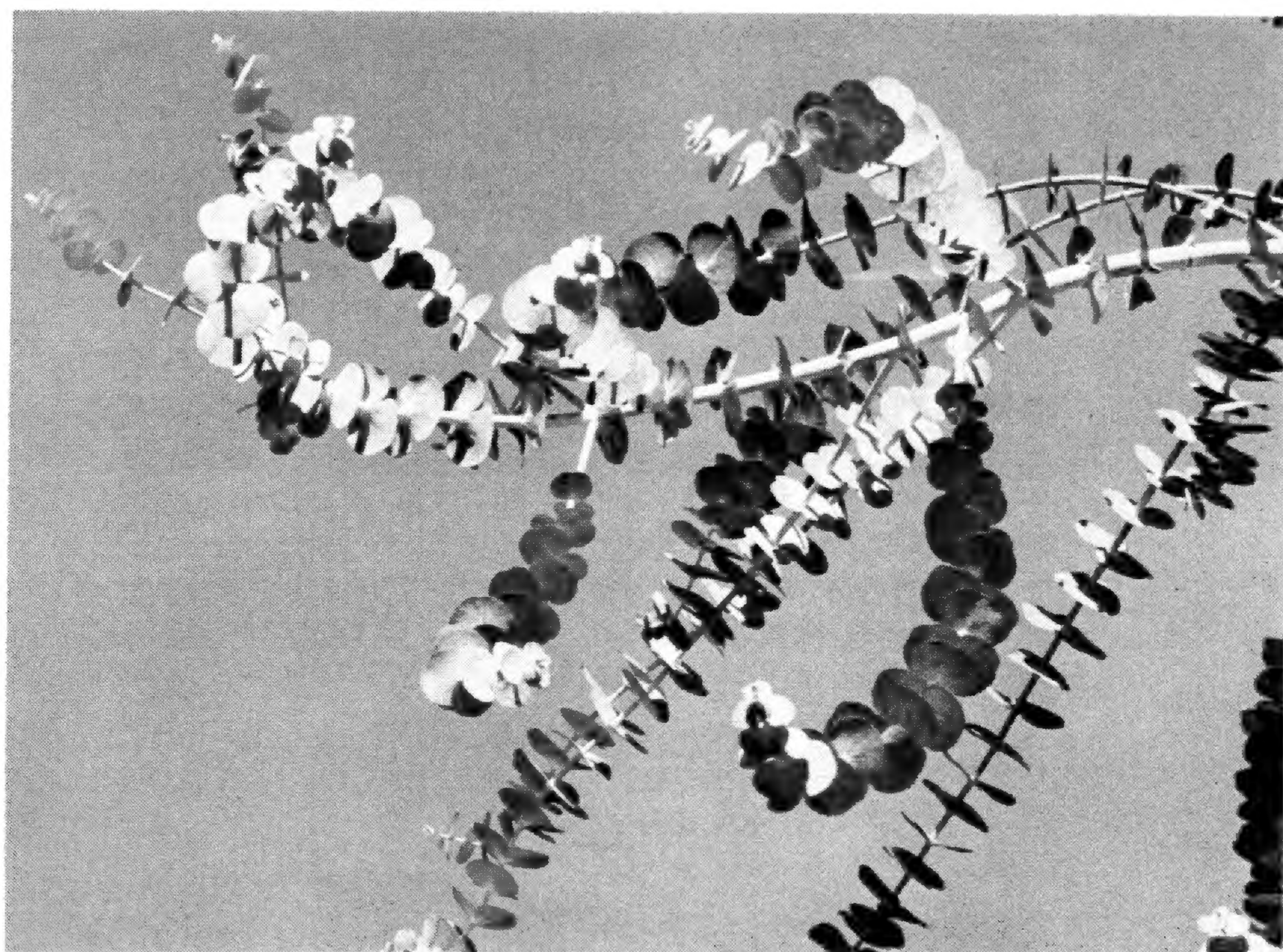
The plants are usually too old and too large having, as a consequence, roots that are much restricted. Such plants rarely, if ever, have the vigor of young seedlings. It took ten years in Australia to persuade the public to buy and plant 6- to 12-inch seedlings instead of 3- to 8-foot tall trees, and it is taking longer in California.

Eucalypts should be always planted deep, i.e., the top of the ball of soil should be 1 1/2 inches below the level of the surrounding ground. Leaving a depression about 1 foot

around the base of the plant into which frost penetrates.

Seedlings should be planted in their final position when the soil is warm so their growth won't be interrupted. May, June and July plantings probably give the best results. Late plantings and little growth before winter may result in casualty during the first winter unless the plants are protected.

"An Introduction to Some Garden Eucalypts," an article written by Richard C. Barnard in the May,



Eucalyptus perriniana.

Photo by William Aplin

in diameter makes watering easier. The depression should be filled to ground level before winter. This will protect the lignotuber (the basal swelling which develops at about cotyledon level), which will produce new shoots in the event of any catastrophic killing of the plant above ground level.

Strong staking and secure tying after planting is not only recommended but is a must. Eucalypts "rocked" by wind when young may never attain full vigor or become wind fast. Rocking not only causes root damage, to which eucalypts are particularly sensitive, but puddles the soil and makes an opening

June and July 1966 issues of the Journal of the Royal Horticultural Society, is highly recommended to anyone who becomes involved in propagation and cultivation of cold-hardy eucalypts in the United States.

When cold-hardy eucalypts are grown for foliage effects, they should be cut back to near ground level each year in mid-March following planting. Two or three times during the summer over-vigorous shoots should be cut back to a pair of side shoots, otherwise one or two of the shoots will become dominant and other shoots from the base will stop growing. This method is recommended particularly for the species

with very glaucous juvenile foliage, such as Tasmanian cider gum and spinning gum.

Twenty trees and six species are represented in the collection of snow gums at the Los Angeles State and County Arboretum. Seed for these trees was obtained variously from botanic gardens in Adelaide, Brisbane, and Canberra in Australia, from the Australian Forest Institute, from the U.S. Department of Agriculture, and from two private collectors, George Spalding, former Arboretum superintendent, and Dr. Samuel Ayres, Jr., one of the founders of the Arboretum.

Two specimens of Tasmanian snow gum (*E. coccifera*) are located respectively in the west end of the Australian section and in the North American-Asiatic section. One was planted out in 1964, the other in 1975. Three specimens of Tasmanian cider gum (*E. gunnii*), planted out in 1953 and 1967, are located in the westernmost part of the Australian section, near the north road in the middle of the Australian section, and in the entranceway forecourt. One specimen of little sally (*E. moorei*), planted out in 1975, is located approximately in the center of the Australian section. Three

specimens of snow or cabbage gum (*E. pauciflora*), planted out in 1958, 1970, and 1974, are located in the southwestern part of the Australian section. Two specimens of spinning gum (*E. perriniana*), planted out in 1960 and 1967, are located along the northern and southern road in the Australian section. Three specimens of black sallee (*E. stellulata*), planted out in 1954, are located in the westernmost part of the Australian section.

Dr. Enari is a senior biologist on the Arboretum staff.

LOS ANGELES STATE AND COUNTY ARBORETUM, Arcadia

May 5 — 5:30 p.m. to 8 p.m.

Bonanza Preview Party
Members and their guests only

May 6 — 9 a.m. to 5 p.m.

Baldwin Bonanza, a plant sale
Presented by California Arboretum Foundation

May 20 — 9 a.m. to 5 p.m.

Epiphyllum Show
Presented by Epiphyllum Society

May 26, 27, 28 — 9 a.m. to 5 p.m.

Santa Anita Bonsai Show
Presented by Santa Anita Bonsai Society

June 2, 3 — 9 a.m. to 5 p.m.

Satsuki and Azalea Show
Presented by Southern California Azalea and Satsuki Society

June 3 — 10 a.m.

Sunday Morning Walk
Asiatic/North American Section
Dr. Gary Wallace, Arboretum botanist
Presented by California Arboretum Foundation

June 3 — 2 p.m.

Sunday Afternoon Talk
Patio Gardening
John Provine, Arboretum superintendent
Presented by California Arboretum Foundation

June 9, 10 — 9 a.m. to 5 p.m.

Hemerocallis Show
Presented by Southern California Hemerocallis and Amaryllis Society

June 23, 24 — 9 a.m. to 5 p.m.

Gladiolus Show
Presented by Southern California Gladiolus Society

June 29, 30, July 1 — 9 a.m. to 5 p.m.

Cactus and Succulent Show
Presented by Cactus and Succulent Society of America

CALENDAR

MAY JUNE, AND JULY

July 21, 22 — 9 a.m. to 5 p.m.

Fern Show
Presented by L.A. International Fern Society

DESCANSO GARDENS, La Canada

May 17 — 10 a.m. to 4 p.m.

Paseo Por Descanso
Presented by Descanso Gardens Guild

May 26 — 2 p.m. to 4 p.m.

Square dancing on the Green for Everyone
Hosts — The Swingers
Presented by Descanso Gardens Guild

May 27 — 2 p.m. to 4 p.m.

Folk Dancing Around the World
La Canada-Flintridge Fiesta Days
Presented by Descanso Gardens Guild

June 3 — 2 p.m.

Sunday Afternoon Talk
Annuals
George Lewis, superintendent
Presented by Descanso Gardens Guild

June 3 — 12:30 p.m. to 1:30 p.m.

Palm Crest Chorus
Marlys Marsteller, Director

June 3 — 2 p.m. to 4 p.m.

Pop's Concert
Tournament of Roses "Sit Down Band"
Pasadena City College

June 17 — 2:30 p.m.

Los Angeles County Sheriffs Rhythm Posse
Captain Ross McCollum, Director
Presented by Descanso Gardens Guild

June 24 — 2:30 p.m. and 7:30 p.m.

Korla Pandit, The Romantic Prince of the Organ
Afternoon and Evening performances
Presented by Descanso Gardens Guild

July 1 — 2:30 p.m.

Dixieland Band
Grace Axtman, Director
Presented by Descanso Gardens Guild

July 8 — 2:30 p.m.

Adult Swing Band
Paul Killian, Director, Pasadena City College

July 15 — 2:30 p.m.

Verdugo Hills Chapter of Sweet Adelines
Bobbette Gantz, Jackie Morgan, Bonnie Sherburn, Directors

SOUTH COAST BOTANIC GARDEN, Palos Verdes Peninsula

May 6 — 2 p.m.

Sunday afternoon in the Garden
Crafts and Arts People Can Do At Home
Presented by South Coast Botanic Garden Foundation

May 19, 20 — 9 a.m. to 5 p.m.

Fiesta De Flores, a plant sale
Presented by South Coast Botanic Garden Foundation

May 26, 27, 28 — 10 a.m. to 5 p.m.

Cactus and Succulent Show
Presented by South Coast Cactus and Succulent Society

May 27 — 2 p.m.

Demonstration
How to Graft Cactus
Presented by South Coast Cactus and Succulent Society

June 9, 10 — 2 p.m.

Festival of Bromeliads
Presented by Southern California Bromeliad Council, Inc.